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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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09/249,895 02/16/99 BARKER

K CY-99006

| EXAMINER |
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LM01/0523

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|-----------|--------------|
| ART UNIT  | PAPER NUMBER |

2733

DATE MAILED:

05/23/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
09/249,895

Applicant(s)  
Barker et al.

Examiner  
D. Trinh

Group Art Unit  
2733



☒ Responsive to communication(s) filed on Feb 16, 1999

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-11 and 13-18 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-11 and 13-18 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 12 is objected to because claim 12 does not exist.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 14 recites the limitation "the number of forward error correction bits ". There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

6. Claims 1-6, 8-10, 13, 15, and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Chennakeshu et al (US 5,822,310).

Regarding claims 1 and 13, Chennakeshu et al disclose a system and method for reliably transmitting messages via radiocommunication signals under non-ideal conditions such as fading (col 1, lines 13-17 and col 4, lines 9-11). The Chennakeshu system is capable of transmitting packets (col 8, lines 43-47) and transmission of messages can be repeated using appropriate time delays (col 12, line 8-12).

Regarding claims 4 and 15, Chennakeshu et al disclose FEC (col 12, lines 12-13).

Regarding claim 8, Chennakeshu et al disclose low bit rate error correction coding (col 4, lines 37-40). In other words, slower transmission can result in less error.

Regarding claims 2, 5, and 9, Chennakeshu et al disclose a satellite (Fig 3).

Regarding claims 3, 6, and 10, Chennakeshu et al disclose a radiocommunication link (Abstract).

Regarding claim 17, Chennakeshu et al disclose FEC (col 12, lines 12-13) and low bit rate error correction coding (col 4, lines 37-40).

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***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 7, 11, 14, 16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chennakeshu et al (US 5,822,310).

As mentioned previously in this Office Action, Chennakeshu et al disclose a system and method for reliably transmitting messages via radiocommunication signals under non-ideal conditions. Chennakeshu et al differ from claims 7, 11, 14, 16, and 18 of the present invention in that Chennakeshu et al do not specifically disclose that the number of FEC bits is configurable. However, Examiner takes official notice that forward error correction is a well-known technique that is frequently used to minimize data hits in poor or noisy environment. The degree of correction (ie. number of FEC bits) depends on the environment, data rate, and error tolerance. Therefore, it would have been a matter of design choice and obvious for one of ordinary skill in the art to vary the FEC level to meet his or her required data rate and tolerance, in order to achieve a desired signal quality in a given environment.

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***Conclusion***

9. Any inquiry concerning this communication from the examiner should be directed to D. Trinh whose telephone number is (703) 306-5620. The examiner can normally be reached on Monday through Friday from 8:00 am to 5:00 pm EST.

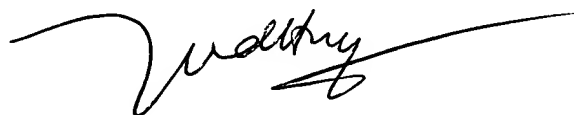
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached on (703) 305-4729. The fax number for the organization where this application or proceeding is assigned is (703) 308-6296.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

D. Trinh



May 19, 2000



**HUY D. VU  
PRIMARY EXAMINER**